

PATENT  
ATTORNEY DOCKET NO. 0092/019001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Nobuhiko OOHARA et al. Art Unit:  
Application No.: filed concurrently Examiner:  
Title: NOVEL OPTICALLY ACTIVE PHOSPHORUS-CHIRAL DIPHOSPHETANES,  
INTERMEDIATES OF THE SAME, AND TRANSITION METAL COMPLEXES  
CONTAINING THE DIPHOSPHETANES AS THE LIGAND  
International Application No.: PCT/JP2004/010670  
International Filing Date : July 27, 2004  
Priority Date : July 28, 2003  
U.S. Filing Date : January 18, 2006

**Mail Stop PCT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to their duty of good faith and candor as set forth in 37 CFR 1.56(a), applicants request that the references cited on attached form PTO-1449 (a copy of which is enclosed) be considered by the Examiner in connection with the search of the prior art required by 37 CFR 1.104.

Enclosed also please find a copy of the International Search Report citing two of these references. The relevance of these two references can be seen from the International Search Report.

Please also note that the two other enclosed publications are discussed on page 3 of the specification.

This Statement is being filed under 37 CFR 1.97(b) prior to the mailing date of a first Office Action on the merits.

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

10/564984

IAPI5 Rec'd PCT/PTO 18 JAN 2006

Information Disclosure Statement

Applicants: Nobuhiko OOHARA et al.

Title: NOVEL OPTICALLY ACTIVE PHOSPHORUS-CHIRAL DIPHOSPHETANES,  
INTERMEDIATES OF THE SAME, AND TRANSITION METAL COMPLEXES  
CONTAINING THE DIPHOSPHETANES AS THE LIGAND


Filing Date: January 18, 2006

Page 2

Applicants' undersigned attorney may be reached at the  
telephone number listed below. All correspondence should  
continue to be directed to our address below.

Respectfully submitted,

Date: January 18, 2006

  
Randolph A. Smith  
Reg. No. 32,548

**SMITH PATENT OFFICE**

1901 Pennsylvania Ave., N.W.

Suite 901

Washington, DC 20006-3433

Telephone: 202/530-5900

Facsimile: 202/530-5902

Oohara011806

Substitute for form 1449A/PTO

**Complete if Known**

*(use as many sheets as necessary)*

Sheet 1 of 2

Application Number

Filed concurrently **10/56498**

Filing Date

January 18, 2006

## Applicants

Nobuhiko OOHARA et al.

### Group Art Unit

Examiner Name

Attorney Docket Number	0092/019001
------------------------	-------------

## U.S. PATENT DOCUMENTS

[illegible]

**FOREIGN PATENT DOCUMENTS**

[illegible]

**EXAMINER**

## DATE CONSIDERED

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

IAP15 Rec'd PCT/PTO 18 JAN 2006

Substitute for form 1449A/PTO

Complete if Known

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 2

Application Number	Filed concurrently <b>10/564984</b>
Filing Date	January 18, 2006
Applicants	Nobuhiko OOHARA et al.
Group Art Unit	
Examiner Name	
Attorney Docket Number	0092/019001

## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

EXAMINER INITIAL*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
		BURK, J. et al., "Preparation and Use of C <sub>2</sub> -Symmetric Bis(phospholanes): Production of $\alpha$ -Amino Acid Derivatives via Highly Enantioselective Hydrogenation Reactions", J. Am. Chem. Soc., 1993, pp. 10125-10138, Vol. 115, No. 22, American Chemical Society.	
		IMAMOTO, T. et al., "P-Chiral Bis(trialkylphosphine) Ligands and Their Use in Highly Enantioselective Hydrogenation Reactions", J. Am. Chem. Soc., 1998, pp. 1635-1636, Vol. 120, No. 7, American Chemical Society.	
		IMAMOTO T. et al., "Optically Active 1,1'-Di-tert-butyl-2,2'-diphosphetanyl and Its Application in Rhodium-Catalyzed Asymmetric Hydrogenations", Synthesis 2004, 2004, pp. 1353-1358, No. 9, Georg Thieme Verlag Stuttgart, New York.	

EXAMINER

DATE CONSIDERED

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.